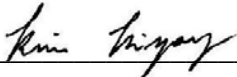


Curriculum Vitae

Notarization. I have read the following and certify that this curriculum vitae is a current and accurate statement of my professional record.

Signature  Date 02/25/2016

Ki-Yong Kim

Department of Physics and Institute for Research in Electronics and Applied Physics
Associate Professor
University of Maryland, College Park, MD 20742
Tel: (301) 405-4993; E-mail: kykim@umd.edu

Education

University of Maryland, College Park, MD
Ph.D., Physics, 2003
Korea University, Seoul, Korea (South)
B.S., Physics, 1995

Professional

University of Maryland, College Park, MD, 20742
Department of Physics and Institute for Research in Electronics and Applied
Physics, 2008 – present
Los Alamos National Laboratory, Los Alamos, NM 87545
Center for Integrated Nanotechnologies, June 2004 – June 2008
University of Maryland, College Park, MD, 20742
Institute for Physical Sciences and Technology, December 2003 – May 2004

Research, Scholarly, and Creative Activities

Articles in Refereed Journals

Google Scholar Citations: Citations = 2,167 *h-index* = 23 *i10-index* = 38
(<http://scholar.google.com/citations?user=ZjDQpMQAAAAJ>)

Lead or correspondence author (denoted by *); undergraduate student¹, graduate student², and postdoctoral researcher³ mentored by me

48. “Generation of scalable terahertz radiation from cylindrically focused two-color laser pulses in air,”
D. Kuk³, Y. J. Yoo², E. W. Rosenthal, N. Jhajj, H. M. Milchberg, and K. Y. Kim*
(submitted).
47. “Effective supercontinuum generation via nonlinear bi-filamentation in air,”
I. Nam², Y. S. You², T. I. Oh², H. Suk, and K. Y. Kim* (submitted).

46. "Microscopic mechanism of terahertz generation in two-color photoionization,"
Y. S. You³, D. Zhang³, T. C. Rensink, J. Palastro, T. M. Antonsen Jr., and K. Y. Kim*,
(submitted).
45. "Generation of strong terahertz fields exceeding 8 MV/cm at 1 kHz and real-time beam
profiling,"
T. I. Oh², Y. J. Yoo², Y. S. You², and K. Y. Kim*,
Applied Physics Letters **105**, 041103 (2014).
44. "All-optical characterization of cryogenically cooled argon clusters in continuous gas jets,"
D. G. Jang², Y. S. You², H. M. Milchberg, H. Suk, and K. Y. Kim*,
Applied Physics Letters **105**, 021906 (2014).
43. "Terahertz optics: Terahertz-driven harmonics,"
K. Y. Kim* and Y. S. You²,
Nature Photonics **8**, 92 (2014).
42. "THz generation by optical Cherenkov emission from ionizing two-color laser pulses,"
L. A. Johnson*, J. P. Palastro, T. M. Antonsen, and K. Y. Kim,
Physical Review A **88**, 063804 (2013).
41. "Intense terahertz generation in two-color laser filamentation: energy scaling with terawatt
laser systems,"
T. I. Oh², Y. S. You², N. Jhajj, E. Rosenthal, H. M. Milchberg, and K. Y. Kim*,
New Journal of Physics **15**, 075002 (2013).
40. "Scaling and saturation of high-power terahertz radiation generation in two-color laser
filamentation,"
T. I. Oh², Y. S. You², N. Jhajj, E. Rosenthal, H. Milchberg, and K. Y. Kim*,
Applied Physics Letters **102**, 201113 (2013).
39. "Alignment-dependent terahertz radiation in two-color photoionization of molecules,"
Y. S. You², T. I. Oh², A. B. Fallahkhair, and K. Y. Kim*,
Physical Review A **87**, 035401 (2013).
38. "Mechanism of elliptically polarized terahertz generation in two-color laser filamentation,"
Y. S. You², T. I. Oh², and K. Y. Kim*,
Optics Letters **38**, 1034 (2013).
37. "Off-axis phase-matched terahertz emission from two-color laser-induced plasma
filaments,"
Y. S. You², T. I. Oh², and K. Y. Kim*,
Physical Review Letters **109**, 183902 (2012).
36. "Two-dimensional plasma current and optimized terahertz generation in two-color
photoionization,"
T. I. Oh², Y. S. You², and K. Y. Kim*,
Optics Express **20**, 19778 (2012).
35. "High-power broadband terahertz generation via two-color photoionization in gases,"
K. Y. Kim*, J. H. Glowina, A. J. Taylor, and G. Rodriguez,
IEEE Journal of Quantum Electronics **48**, 797 (2012), **Invited**.
34. "Generation of coherent terahertz generation in ultrafast laser-gas interactions,"
K. Y. Kim*,
Physics of Plasmas **16**, 056706 (2009), **Invited**.
33. "Amplitude ambiguities in second-harmonic-generation frequency-resolved optical gating:
reply to comment,"

- B. Yellampalle*, K. Y. Kim, and A. J. Taylor,
Optics Letters **34**, 2603 (2009).
32. "Observation of terahertz radiation coherently generated by acoustic waves,"
M. Armstrong*, E. Reed, K. Y. Kim, J. H. Glowonia, E. L. Piner, and J. C. Roberts,
Nature Physics **5**, 285 (2009).
 31. "In-line holographic imaging and electron density extraction of ultrafast ionized air filaments,"
G. Rodriguez*, B. Yellampalle, A. R. Valenzuela, M. J. Schmitt, and K. Y. Kim,
Journal of the Optical Society of America B **25**, 1988 (2008).
 30. "Coherent control of terahertz supercontinuum generation in ultrafast laser-gas interactions,"
K. Y. Kim*, A. J. Taylor, J. H. Glowonia, and G. Rodriguez,
Nature Photonics **2**, 605 (2008).
 29. "Atomic-scale time and space resolution of terahertz frequency acoustic waves,"
E. Reed*, M. Armstrong, K. Y. Kim, and J. H. Glowonia,
Physical Review Letters **101**, 014302 (2008).
 28. "Measurements of terahertz electrical conductivity of intense laser-heated dense aluminum plasmas,"
K. Y. Kim*, B. Yellampalle, J. H. Glowonia, A. J. Taylor, and G. Rodriguez,
Physical Review Letters **100**, 135002 (2008).
 27. "Three envelope approach for ultrafast pulse characterization in a pump-probe experiment,"
B. Yellampalle*, E. M. Chia, K. Kim, and A. J. Taylor,
Applied Physics Letters **92**, 061111 (2008).
 26. "Terahertz radiation from shocked materials,"
E. J. Reed*, M. R. Armstrong, K. Kim, M. Soljačić, R. Gee, J. H. Glowonia, and J. D. Joannopoulos,
Materials Today **10**, 44 (2007), **Review Article**
 25. "Amplitude ambiguities in second harmonic generation frequency resolved optical gating,"
B. Yellampalle*, K. Y. Kim, and A. J. Taylor,
Optics Letters **32**, 3558 (2007).
 24. "Single-shot terahertz pulse characterization via two-dimensional electro-optic imaging with dual echelons,"
K. Y. Kim*, B. Yellampalle, A. J. Taylor, G. Rodriguez, and J. H. Glowonia,
Optics Letters **32**, 1968 (2007).
 23. "Terahertz emission from ultrafast ionizing air in symmetry-broken laser fields,"
K. Y. Kim*, J. H. Glowonia, A. J. Taylor, and G. Rodriguez,
Optics Express **15**, 4577 (2007).
 22. "Details of electro-optic terahertz detection with a chirped probe pulse,"
B. Yellampalle*, K. Y. Kim, G. Rodriguez, J. H. Glowonia, and A. J. Taylor,
Optics Express **15**, 1376 (2007).
 21. Comment on "Temporally resolved electro-optic effect,"
B. Yellampalle*, K. Y. Kim, J. H. Glowonia, and A. J. Taylor,
Optics Letters **32**, 1341 (2007).
 20. "Clustered gases as a medium for efficient plasma waveguide generation,"
H. M. Milchberg*, K. Y. Kim, V. Kumarappan, B. D. Leyer, and H. Sheng,
Philosophical Transactions of the Royal Society A: Mathematical, Physical &

- Engineering Sciences **364**, 647 (2006).
19. "X-ray spectroscopy of 1 cm plasma channels produced by self-guided pulse propagation in elongated cluster jets,"
K. Y. Kim, H. M. Milchberg*, A. Ya. Faenov, A. I. Magunov, T. A. Pikuz, and I. Yu. Skobelev,
Physical Review E **73**, 066403 (2006).
 18. "Single-shot, interferometric, high-resolution, terahertz field diagnostic technique,"
K. Y. Kim*, B. Yellampalle, G. Rodriguez, R. D. Averitt, A. J. Taylor, and J. H. Glowia,
Applied Physics Letters **88**, 041123 (2006).
 17. "Observation of modulations in Lyman-alpha line profiles of multicharged ions in clusters irradiated by femtosecond laser pulses: Effect of a dynamic electric field,"
V. P. Gavrilenko, A. Ya. Faenov, A. I. Magunov, T. A. Pikuz, I. Yu. Skobelev, K. Y. Kim, and H. M. Milchberg*,
Physical Review A **73**, 013203 (2006).
 16. "Algorithm for high-resolution single-shot THz measurement using in-line spectral interferometry with chirped pulses,"
B. Yellampalle*, K. Y. Kim, G. Rodriguez, J. H. Glowia, and A. J. Taylor,
Applied Physics Letters **87**, 211109 (2005).
 15. "Plasma waveguides efficiently generated by Bessel beams in elongated cluster gas jets,"
H. Sheng, K. Y. Kim, V. Kumarappan, B. D. Layer, and H. M. Milchberg*,
Physical Review E **72**, 036411 (2005).
 14. "Guiding of intense laser pulses in plasma waveguides produced from efficient, femtosecond end-pumped heating of clustered gases,"
V. Kumarappan, K. Y. Kim, and H. M. Milchberg*,
Physical Review Letters **94**, 205004 (2005).
 13. "Measurement of ultrafast dynamics in the interaction of intense laser pulses with gases, clusters, and plasma waveguides,"
K. Y. Kim, V. Kumarappan, I. Alexeev, and H. M. Milchberg*,
Physics of Plasmas **12**, 056712 (2005), **Invited**.
 12. "Spectral redshifts in the intense laser-cluster interaction,"
K. Y. Kim, I. Alexeev, T. Antonsen, A. Gupta, V. Kumarappan, and H. M. Milchberg*,
Physical Review A Rapid Communications **71**, 011201(R) (2005).
 11. "Gases of exploding laser-heated cluster nanoplasmas as a nonlinear optical medium,"
K. Y. Kim, I. Alexeev, V. Kumarappan, E. Parra, T. Antonsen, T. Taguchi, A. Gupta, and H. M. Milchberg*,
Physics of Plasmas **11**, 2882 (2004), **Invited**.
 10. "Measurement of the average size and density of clusters in a gas jet,"
K. Y. Kim, V. Kumarappan, and H. M. Milchberg*,
Applied Physics Letters **83**, 3210 (2003).
 9. "Self-focusing of intense laser pulses in a clustered gas,"
I. Alexeev, T. M. Antonsen, K. Y. Kim, and H. M. Milchberg*,
Physical Review Letters **90**, 103402 (2003).
 8. "Hydrodynamic time scales for intense-laser-heated clusters,"
E. Parra, I. Alexeev, J. Fan, K. Y. Kim, S. J. McNaught, and H. M. Milchberg*,
Journal of the Optical Society of America B **20**, 118 (2003), invited.

7. “Time-resolved explosion of intense-laser-heated clusters,”
K. Y. Kim, I. Alexeev, E. Parra, and H. M. Milchberg*,
Physical Review Letters **90**, 023401 (2003).
6. “Single-shot measurement of laser-induced double step ionization of helium,”
K. Y. Kim, I. Alexeev, and H. M. Milchberg*,
Optics Express **10**, 1563 (2002).
5. “Single-shot supercontinuum spectral interferometry,”
K. Y. Kim, I. Alexeev, and H. M. Milchberg*,
Applied Physics Letters **81**, 4124 (2002).
4. “Resonant self-trapping of high intensity Bessel beams in underdense plasmas,”
J. Fan, E. Parra, K. Y. Kim, I. Alexeev, H. M. Milchberg*, J. Cooley, and T. M. Antonsen,
Physical Review E **65**, 056408 (2002).
3. “Measurement of the superluminal group velocity of an ultrashort Bessel beam pulse,”
I. Alexeev, K. Y. Kim, and H. M. Milchberg*,
Physical Review Letters **88**, 073901 (2002).
2. “Tubular plasma generation with a high-power hollow Bessel beam,”
J. Fan, E. Parra, I. Alexeev, K. Y. Kim, H. M. Milchberg*, L. Ya. Margolin, and L. N. Pyatnitskii,
Physical Review E Rapid Communications **62**, R7603 (2000).
1. “X-ray and extreme ultraviolet emission induced by variable pulse-width irradiation of Ar and Kr clusters and droplets,”
E. Parra, I. Alexeev, J. Fan, K. Y. Kim, S. J. McNaught, and H. M. Milchberg*,
Physical Review E Rapid Communications **62**, R5931 (2000).

Monographs, Reports and Extension Publications

1. “Intense broadband terahertz radiation via quantum coherent control,”
K. Y. Kim*, A. J. Taylor, J. H. Glowina, and G. Rodriguez,
Optics and Photonics News **19**, 49 (2008), magazine of the Optical Society of America

Talks, Abstracts, and Other Professional Papers Presented

i. Invited talks, etc

43. “Laser-based, high-power terahertz wave generation and characterization”
Laboratory for Physical Sciences, College Park, Maryland, December 2015 (1 hr.).
42. “Coherent control of terahertz generation in intense laser-atom interaction”
University of Delaware, Newark, Delaware, November 2015 (1 hr.).
41. “Strong terahertz field generation at high repetition rates”
IEEE Photonics Conference (IPC) 2015, Reston, Virginia, October 2015 (30 min.).
40. “Intense laser-matter interaction and coherent control of terahertz generation”
University of Texas, Arlington, Texas, December 2014 (colloquium).
39. “Coherent control of strong fields and terahertz radiation generation”
Korea Advanced Institute of Science and Technology (KAIST), Korea, June 2014 (1 hr.).
38. “Coherent control of strong terahertz radiation from laser-produced plasmas”
Gwangju Institute of Science and Technology (GIST), Korea, June 2014 (1 hr.).
37. “Strong terahertz radiation from laser-produced plasmas”

- Korea University, Korea, June 2014 (1 hr.).
36. “Coherent control of high field interactions in laser-produced plasmas”
University of Maryland, College Park, Maryland, September 2013 (colloquium).
 35. “Generation of broadband coherent light in laser-produced plasmas”
US Korea Conference (UKC), Los Angeles, California, August 2012 (30 mins.).
 34. “Generation of ultrafast electric currents and terahertz radiation in plasma,”
Korea Electrotechnology Research Institute (KERI), Korea, June 2011 (1 hr.).
 33. “Generation of intense, broadband terahertz radiation in plasmas,”
Pohang University of Science and Technology (Postech), Korea, June 2011 (1 hr.).
 32. “Terahertz supercontinuum generation in laser-produced plasmas,”
Korea Advanced Institute of Science and Technology (KAIST), Korea, June 2011 (1 hr.).
 31. “Ultrafast electric current and terahertz radiation generation in plasmas,”
Kyungpook National University (KNU), Korea, June 2011 (1 hr.).
 30. “High-power terahertz generation by two-color photoionization,”
Ulsan National Institute of Science and Technology (UNIST), Korea, June 2011 (1 hr.).
 29. “Intense terahertz generation in laser-produced plasmas,”
Gwangju Institute of Science and Technology (GIST), Korea, June 2011 (1 hr.).
 28. “Generation of high-power terahertz pulse by two-color ionization in gases,”
University of Michigan, Ann Arbor, Michigan, Oct 2010 (1 hr.).
 27. “Generation of high energy coherent THz pulses by 2 color ionization in gases,”
Symposium on Special Topics in Physics, University of Maryland, College Park,
Maryland, Aug 2010 (40 mins.).
 26. “Ultrafast Terahertz Generation via Laser-Matter Interactions,”
University of Maryland, College Park, Maryland, April 2010 (1 hr.).
 25. “Coherent control of electrical current and terahertz radiation,”
University of Maryland, Baltimore County, Maryland, September 2009 (1 hr.).
 24. “Coherent control of intense terahertz radiation,”
University of Buffalo, Buffalo, New York, September 2009 (1 hr.).
 23. “Laser plasma based intense terahertz generation,”
SURA Terahertz Applications Symposium, Washington D.C., June 2009 (30 min.).
 22. “Quantum coherent control of intense terahertz radiation,”
National Institute of Standards and Technology, Gaithersburg, MD, May 2009 (1 hr.).
 21. “Ultrafast terahertz generation and spectroscopy for accelerator diagnostics,”
APS April Meeting, Denver, Colorado, May 2009 (30 min.).
 20. “Coherent control of intense terahertz radiation in laser-produced plasmas,”
Proceedings of the 50th Annual Meeting of the Division of Plasma Physics, Dallas,
Texas, November 2008 (30 min.).
 19. “Coherent control of terahertz electromagnetic radiation,”
Los Alamos National Laboratory, Los Alamos, NM, July 2008 (Director’s Colloquium).
 18. “Intense THz supercontinuum generation in femtosecond laser-gas interactions,”
CLEO/QELS conference, San Jose, California, May 2008 (30 min.).
 17. “Ultrafast THz generation and spectroscopy of warm dense matter,”
Cornell University, Ithaca, New York, April 2008 (1 hr.).
 16. “Laser-matter interactions at nanoscales: ultrafast x-ray and THz generation,”
Rice University, Houston, Texas, February 2008 (colloquium).
 15. “Intense laser-matter interactions and ultrafast THz science,”

- University of Maryland, College Park, Maryland, February 2008 (1 hr.).
14. “Intense THz supercontinuum radiation from ultrafast laser-gas interactions,”
Ultrafast Optics and High Field Short Wavelength, Santa Fe, New Mexico, 2007 (30 min.).
 13. “High-intensity laser-plasma interactions: Ultrafast X-ray and terahertz spectroscopy,”
University of Colorado, Boulder, Colorado, February 2007 (colloquium).
 12. “High-intensity laser-plasma interactions: Ultrafast X-ray and terahertz spectroscopy,”
Gwangju Institute of Science and Technology, Korea, February 2007 (1 hr.).
 11. “Ultrafast, high-intensity laser interactions with gases and nanoscale clusters,”
University of Nebraska, Lincoln, Nebraska, March 2006 (colloquium).
 10. “Single-shot, high-resolution terahertz field diagnostic,”
Lawrence Berkeley National Laboratory, Berkeley, California, August 2005 (1 hr.).
 9. “Ultrafast dynamics in the interaction of intense laser pulses with gases and nanoscale clusters,”
University of California, San Diego, California, April 2005 (1 hr.).
 8. “Ultrafast dynamics in the interaction of intense laser pulses with gases and nanoscale clusters,”
Korea University,
Pohang University of Science and Technology (POSTECH),
Korea Electrotechnology Research Institute (KERI),
Korea Advanced Institute of Science and Technology (KAIST), and
Advanced Photonics Research Institute (APRI), December 2004 (1 hour seminars).
 7. “Measurement of ultrafast dynamics in the interaction of intense laser pulses with gases, clusters, and plasma waveguides,”
Proceedings of the 46th Annual Meeting of the Division of Plasma Physics, Savannah, Georgia, November 2004 (30 min.).
 6. “Ultrafast optical diagnostic of laser plasma: single-shot supercontinuum spectral interferometry,”
11th Advanced Accelerator Concepts workshop, Stony Brook, New York, 2004 (30 min.).
 5. “Measurement of ultrafast dynamics in the interaction of intense laser pulses with gases, atomic clusters, and plasmas,”
Los Alamos National Laboratory, Los Alamos, New Mexico, December 2003 (1 hr.).
 4. “Ultrafast optical diagnostic for intense laser-matter interactions: single-shot supercontinuum spectral interferometry (SSSI),”
University of Maryland, College Park, Maryland, November 2003 (30 min.).
 3. “Laser-induced femtosecond explosion dynamics of clusters and its affect on pulse self-focusing,”
CLEO/QELS conference, Baltimore, Maryland, June 2003 (30 min.).
 2. “Measurement of ultrafast dynamics in the interaction of intense laser fields with gases, clusters, and plasmas,”
Naval Research Laboratory, Washington D. C., May 2003 (1 hr.).
 1. “Measurement of ultrafast dynamics in the intense laser interaction with gases, atomic clusters, and plasmas,”
Lawrence Livermore National Laboratory, California, February 2003 (1 hr.).

ii-iii. Conference proceedings (Refereed and Unrefereed, >3 pages)

10. "Terahertz generation and propagation in two-color laser produced plasma,"
Y. S. You², T. I. Oh², and K. Y. Kim*,
Ultrafast Phenomena XVII, Snowmass, Colorado, United States, July 2010.
Ultrafast Phenomena XVII, Proceedings of the 17th International Conference, p.652
(2011).
9. "Summary report of working group 5: beam and radiation generation, monitoring, and
control,"
M. Church* and K. Y. Kim,
Advanced Accelerator Concepts, 14th Workshop, Annapolis, Maryland, June 2010.
AIP Conference Proceedings **1299**, 104-109 (2010)
8. "Single-shot, high-resolution, THz field reconstruction using phase-retrieval,"
B. Yellampalle*, K. Y. Kim, R. D. Averitt, G. Rodriguez, J. H. Glowia, and A. J.
Taylor,
Ultrafast Phenomena, 15th International Conference and Tabletop Exhibit, Pacific Grove,
California, July 2006.
Springer Series in Chemical Physics: Ultrafast Phenomena **XV**, 796 (2006).
7. "Terahertz-frequency electrical conductivity measurements of ultrashort laser-ablated
plasmas,"
K. Y. Kim*, B. Yellampalle, J. H. Glowia, A. J. Taylor, and G. Rodriguez.
High-Power Laser Ablation VI, Taos, New Mexico, May 2006.
Proceedings of SPIE **6261**, 62612Q (2006).
6. "High-resolution x-ray spectromicroscopy observation of 1 MeV ions under far from
relativistic laser beam channeling in N₂O clusters,"
A. Ya. Faenov, A. I. Magunov, T. A. Pikuz, I. Yu. Skobelev, K. Y. Kim, V. Kumarappan,
H. M. Milchberg*,
Topical Problems of Nonlinear Wave Physics, St. Petersburg, Russia, August 2005.
Proceedings of SPIE **5975**, 597502 (2006).
5. "Diagnostic of laser-plasmas: Single-shot supercontinuum spectral interferometry,"
K. Y. Kim, V. Kumarappan, I. Alexeev, and T. M. Antonsen, and H. M. Milchberg*,
invited.
Advanced Accelerator Concept, 11th Workshop, Stony Brook, New York, June 2004.
AIP Conference Proceedings **737**, 407-413 (2004).
4. "Guiding of intense pulses in efficient end-pumped plasma channels generated by self-
guiding in Ar and H₂ clusters,"
V. Kumarappan, K. Y. Kim, T. M. Antonsen, H. M. Milchberg*, invited.
Advanced Accelerator Concept, 11th Workshop, Stony Brook, New York, June 2004.
AIP Conference Proceedings **737**, 497-503 (2004).
3. "Interaction of intense laser pulses with noble gas clusters and droplets,"
E. Parra, I. Alexeev, J. Fan, K. Y. Kim, S. J. McNaught, and H. M. Milchberg*,
13th APS Topical Conference on Atomic Processes in Plasmas, Gatlingburg, TN, April
2002.
AIP Conference Proceedings **635**, 233-248 (2002).
2. "Plasma waveguides: addition of end funnels and generation in clustered gases,"
K. Y. Kim, I. Alexeev, J. Fan, E. Parra, and H. M. Milchberg*,
Advanced Accelerator Concept, 10th Workshop, Oxnard, California, June 2002.
AIP Conference Proceedings **647**, 646-653 (2002).

1. “Resonant and hollow beam generation of plasma channels,”
I. Alexeev, K. Y. Kim, J. Fan, E. Parra, H. M. Milchberg*, L. Ya. Margolin and L. N. Pyatnitskii,
Advanced Accelerator Concept, 9th Workshop, Santa Fe, New Mexico, 2000.
AIP Conference Proceedings **569**, 231-241 (2001).

ii-iii. Conference proceedings & presentations (Refereed and Unrefereed, <3 pages)

96. “Generation of high-density, thin gas jets for high power laser interaction at high repetition rates,”
Y. Tay², D. Kuk³, L. Hahn¹, H. Milchberg, and K. Y. Kim*,
CLEO/QELS, San Jose, California, Jun 2016 (submitted).
95. “Intense terahertz field generation via two-color laser filamentation at 1 kHz repetition rates,”
Y. Yoo², D. H. Kuk³, and K. Y. Kim*,
CLEO/QELS, San Jose, California, Jun 2016 (submitted).
94. “Plasma sheet and strong terahertz generation with elliptically shaped two-color laser pulses,”
D. Kuk³, Y. Yoo², E. Rosenthal, N. Jhajj, and H. Milchberg, and K. Y. Kim*,
CLEO/QELS, San Jose, California, Jun 2016 (submitted).
93. “Generation and characterization of high-density gas jets from a 150 micron diameter nozzle in air,”
L. Hahn¹, K. Bartas¹, Y. Tay², D. Kuk³, and K. Y. Kim*,
APS March Meeting, Baltimore, March 2016 (to be presented).
92. “Single-shot ultrafast interferometric imaging,”
D. Zhu², D. Kuk³, and K. Y. Kim*,
APS March Meeting, Baltimore, March 2016 (to be presented).
91. “Interaction of high density, thin, gas jets with ultrashort laser pulses at 1 kHz repetition rates,”
Y. Tay², D. Kuk³, H. Milchberg, and K. Y. Kim*,
APS March Meeting, Baltimore, March 2016 (to be presented).
90. “Generation of scalable terahertz radiation from cylindrically focused laser pulses in air,”
D. Kuk³, Y. Yoo², E. Rosenthal, N. Jhajj, and H. Milchberg, and K. Y. Kim*,
APS March Meeting, Baltimore, March 2016 (to be presented).
89. “Refocusing and high field generation of terahertz radiation in two-color laser filamentation,”
Y. Yoo², D. H. Kuk³, and K. Y. Kim*,
APS March Meeting, Baltimore, March 2016 (to be presented).
88. “Generation of solid density Ar fiber targets for high-repetition intense laser pulse interaction with overdense plasma,”
D. H. Kuk³, Y. Tay, H. M. Milchberg, and K. Y. Kim*,
Proceedings of the 57th Annual Meeting of the Division of Plasma Physics, Savannah, Georgia, November 2015.
87. “Conical Cherenkov terahertz emission in two-color laser-produced plasma,”
Y. S. You³, L. Johnson, T. Antonsen, and K. Y. Kim*,
Frontiers in Optics 2015 and Laser Science, San Jose, California, October 2015.

86. "Terahertz generation from cylindrically focused two-color laser pulses in air,"
Y. J. Yoo², D. Kuk³, E. Rosenthal, N. Jahjj, H. Milchberg, and K. Y. Kim*,
IEEE Photonics Conference (IPC) 2015, Reston, Virginia, October 2015.
85. "High-speed cameras capturing ultrafast phenomena,"
K. Y. Kim*,
US-Korea Conference on Science, Technology, and Entrepreneurship, Atlanta, Georgia,
2015.
84. "Generation of solid-density Ar fiber targets for high-repetition intense laser pulse
interaction with overdense matter,"
D. H. Kuk³, Y. Tay², and K. Y. Kim*,
21st Target Fabrication Meeting, Las Vegas, Nevada, June 2015.
83. "Intense laser interaction with argon cluster/fiber targets and radiation generation at 1 kHz
repetition rates,"
Y. Tay², D. H. Kuk³, H. Milchberg, and K. Y. Kim*,
APS April Meeting, Baltimore, April 2015.
82. "Generation of strong terahertz field from two-color laser filamentation and optical
rectification,"
D. H. Kuk³, Y. J. Yoo², T. I. Oh, Y. S. You, and K. Y. Kim*,
APS April Meeting, Baltimore, April 2015.
81. "Scalable THz generation with multi-filamentation in air and THz beam profiling,"
Y. J. Yoo², D. H. Kuk³, H. M. Milchberg, and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, March 2015.
80. "Advanced algorithm for THz field retrieval in single-shot THz detection,"
D. G. Jang, H. Suk, and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, March 2015.
79. "Conical THz radiation by Cherenkov emission in plasma,"
Y. S. You³, L. Johnson, T. Antonsen, and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, March 2015.
78. "Generation of high-density, thin gas jets for high repetition-rate experiments,"
Y. Tay², L. Hahn², Y. S. You³, H. M. Milchberg, and K. Y. Kim*,
Proceedings of the 56th Annual Meeting of the Division of Plasma Physics, New Orleans,
Louisiana, October 2014.
77. "Characterization of high-density argon clusters in continuous flows,"
D. G. Jang², Y. S. You³, Y. Tay², L. Hahn², H. M. Milchberg, and K. Y. Kim*,
Proceedings of the 56th Annual Meeting of the Division of Plasma Physics, New Orleans,
Louisiana, October 2014.
76. "Terahertz generation in two-color photoionization and its microscopic mechanism,"
Y. S. You³, D. Zhang³, and K. Y. Kim*,
Frontiers in Optics 2014 (the 98th OSA Annual Meeting) and Laser Science XXX,
Tucson, Arizona 2014.
75. "Intense terahertz generation via filamentation and real-time imaging,"
Y. J. Yoo², T. I. Oh², Y. S. You³, and K. Y. Kim*,
US-Korea Conference on Science, Technology, and Entrepreneurship, San Francisco,
California, 2014.
74. "Electron dynamics and terahertz emission in two-color photoionization,"
Y. S. You³, D. Zhang³, T. Rensink, and K. Y. Kim*,

- 24th International Conference on Atomic Physics, Washington DC, Aug 2014.
73. "High-power terahertz generation via two-color laser filamentation and real-time terahertz imaging,"
T. I. Oh², Y. J. Yoo², Y. S. You³, and K. Y. Kim*,
CLEO/QELS, San Jose, California, Jun 2014.
 72. "Microscopic verification of terahertz generation mechanism in two-color laser-produced plasma,"
Y. S. You³, Dongwen Zhang³, and K. Y. Kim*,
CLEO/QELS, San Jose, California, Jun 2014.
 71. "Generation of broadband coherent light in laser-produced plasmas,"
T. I. Oh², Y. S. You², and K. Y. Kim*,
US-Korea Conference on Science, Technology, and Entrepreneurship, New Jersey, 2013.
 70. "Dynamic terahertz optics for spectral and polarization modulations,"
Y. J. Yoo², T. I. Oh², and K. Y. Kim*,
US-Korea Conference on Science, Technology, and Entrepreneurship, New Jersey, 2013.
 69. "Optical characterization of argon clusters in continuous flow jets,"
D. Jang², Y. S. You², J. Magill², H. M. Milchberg, and K. Y. Kim*,
US-Korea Conference on Science, Technology, and Entrepreneurship, New Jersey, 2013.
 68. "Supercontinuum generation in femtosecond noncollinear bi-filamentation,"
I. Nam², Y. You², T. I. Oh², H. Suk, and K. Y. Kim*,
CLEO/QELS (JW2A.24), San Jose, California, 2013.
 67. "Elliptically polarized terahertz generation in two-color laser filamentation,"
Y. S. You², T. I. Oh², and K. Y. Kim*,
CLEO/QELS (CM4J.2), San Jose, California, 2013.
 66. "Terahertz energy scaling and saturation in two-color laser filamentation,"
T. I. Oh², Y. You², N. Jhajj, E. Rosenthal, H. M. Milchberg, and K. Y. Kim*,
CLEO/QELS (CM4J.1), San Jose, California, 2013.
 65. "Mechanisms of elliptically polarized THz generation in two-color laser filamentation,"
Y. S. You², T. I. Oh², and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, April 2013.
 64. "Phase-matched terahertz generation in femtosecond dichroic filamentation,"
Y. S. You², T. I. Oh², and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, April 2013.
 63. "High-power terahertz generation in two-color laser produced plasmas: THz yield scaling and saturation,"
T. I. Oh², Y. S. You², N. Jhajj, E. Rosenthal, H. Milchberg, and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, April 2013.
 62. "Propagation effects on THz generation from ionizing two color laser pulses,"
L. Johnson, T. Antonsen, J. Palastro, and K. Y. Kim,
Proceedings of the 54th Annual Meeting of the Division of Plasma Physics, Providence, RI, October 2012.
 61. "Scalable THz generation in two-color laser-produced plasma,"
Y. S. You², T. I. Oh², and K. Y. Kim*,
Proceedings of the 54th Annual Meeting of the Division of Plasma Physics, Providence, RI, October 2012.
 60. "Modeling propagation effects on terahertz generation from ionizing two color laser

- pulses,”
L. Johnson*, T. Antonsen, J. Palastro, K. Y. Kim,
COFIL 2012, 4th international symposium on filamentation, Tucson, AZ, October 2012.
59. “Scalable terahertz generation in two-color laser filamentation,”
Y. S. You², T. I. Oh², and K. Y. Kim*,
COFIL 2012, 4th international symposium on filamentation, Tucson, AZ, October 2012.
 58. “Two-dimensional photocurrent control in air plasma for optimized terahertz generation,”
T. I. Oh², Y. You², and K. Y. Kim*,
CLEO/QELS, San Jose, California, 2012.
 57. “Quasi-phase-matched terahertz generation from two-color laser-produced plasma,”
Y. You², T. I. Oh², and K. Y. Kim*,
CLEO/QELS, San Jose, California, 2012.
 56. “Measurement of ultrafast plasma currents in two-color laser-produced plasma,”
Y. You², T. I. Oh², and K. Y. Kim*,
Proceedings of the 53rd Annual Meeting of the Division of Plasma Physics, Salt Lake
City, Utah, November 2011.
 55. “Broadband THz radiation from two-color laser-produced plasma,”
Y. You², T. I. Oh², and K. Y. Kim*,
Proceedings of the 53rd Annual Meeting of the Division of Plasma Physics, Salt Lake
City, Utah, November 2011.
 54. “Optimization of terahertz generation in laser-produced plasma filaments,”
T. I. Oh², Y. S. You², and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, March 2011.
 53. “Terahertz emission modulated by molecular alignment in two-color laser mixed plasma,”
Y. S. You², T. I. Oh², and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, March 2011.
 52. “Terahertz profile from two-color laser-produced plasma,”
Y. S. You², T. I. Oh², and K. Y. Kim*,
International Workshop on Optical Terahertz Science and Technology, March 2011.
 51. “B-dot probe study of two-color laser-produced elongated air filaments,”
K. Y. Kim*, S. Varma, M. Aubuchon, Y.-H. Chen, H. Milchberg
CLEO/QELS and PhAST, Baltimore, Maryland, 2009.
 50. “Generation of terahertz and harmonic radiation in ultrafast laser-gas interactions,”
K. Y. Kim*,
CLEO/QELS and PhAST, Baltimore, Maryland, 2009.
 49. “Ultrafast terahertz generation and spectroscopy for accelerator diagnostics,”
K. Y. Kim*,
APS April Meeting, Denver, Colorado, May 2009.
 48. “Coherent control of THz generation in laser-produced plasmas,”
K. Y. Kim*,
Proceedings of the 50th Annual Meeting of the Division of Plasma Physics, Dallas,
Texas, 2008.
 47. “Atomic-scale time and space resolution of THz frequency acoustic waves,”
E. J. Reed*, M. R. Armstrong, K. Y. Kim, and J. H. Glowia
LEOS Annual Meeting, Newport Beach, California, 2008.
 46. “Intense THz supercontinuum generation in femtosecond laser-gas interactions,”

- K. Y. Kim*, A. J. Taylor, and G. Rodriguez,
CLEO/QELS and PhAST Technical Digest on CD-ROM, San Jose, California, 2008.
45. "Intense coherent THz radiation from two-color laser-gas interactions,"
K. Y. Kim*, B. Yellampalle, J. H. Glowonia, A. J. Taylor, and G. Rodriguez,
Proceedings of the 49th Annual Meeting of the Division of Plasma Physics, Orlando,
Florida, November 2007.
 44. "Quasi-DC terahertz electrical conductivity measurements of dense aluminum plasma,"
G. Rodriguez*, B. Yellampalle, J. H. Glowonia, A. J. Taylor, and K. Y. Kim,
Proceedings of the 49th Annual Meeting of the Division of Plasma Physics, Orlando,
Florida, November 2007.
 43. "Intense THz supercontinuum radiation from ultrafast laser-gas interactions,"
K. Y. Kim*, B. Yellampalle, G. Rodriguez, J. H. Glowonia, and A. J. Taylor,
Ultrafast Optics and High Field Short Wavelength, Santa Fe, New Mexico, 2007.
 42. "Noise tolerance in pulse reconstruction using first and second order interferometric
autocorrelations,"
B. Yellampalle*, K. Y. Kim, and A. J. Taylor,
Ultrafast Optics and High Field Short Wavelength, Santa Fe, New Mexico, 2007.
 41. "Distinct pulses with nearly identical second harmonic frequency resolved optical gating
traces,"
B. Yellampalle*, K. Y. Kim, and A. J. Taylor,
Ultrafast Optics and High Field Short Wavelength, Santa Fe, New Mexico, 2007.
 40. "Probing quasi-DC electrical conductivity of warm dense matter with time-resolved
terahertz spectroscopy,"
G. Rodriguez*, K. Y. Kim, A. J. Taylor, and H. Glowonia,
Warm Dense Matter, Porquerolles, France, 2007.
 39. "Intense coherent THz pulse generation by two-color photoionization in air,"
K. Y. Kim*, B. Yellampalle, J. H. Glowonia, A. J. Taylor, and G. Rodriguez,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Baltimore, Maryland, 2007.
 38. "Electrical conductivity measurements of warm dense matter with time-resolved terahertz
spectroscopy,"
K. Y. Kim*, J. H. Glowonia, B. Yellampalle, A. J. Taylor, and G. Rodriguez,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Baltimore, Maryland, 2007.
 37. "Single-shot THz pulse characterization with dual echelons,"
K. Y. Kim*, B. Yellampalle, A. J. Taylor, G. Rodriguez, and J. H. Glowonia,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Baltimore, Maryland, 2007.
 36. "Complex-pulse characterization using a one dimensional scheme,"
B. Yellampalle*, E. M. Chia, K. Y. Kim, R. D. Averitt, A. J. Taylor,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Baltimore, Maryland, 2007.
 35. "Revisiting chirped probe pulse electro-optic terahertz detection,"
B. Yellampalle*, K. Y. Kim, G. Rodriguez, J. H. Glowonia, and A. J. Taylor,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Baltimore, Maryland, 2007.
 34. "Intense coherent terahertz radiation from two-color photocurrent mixing in atmospheric
air,"
K. Y. Kim*, B. Yellampalle, J. H. Glowonia, A. J. Taylor, and G. Rodriguez,
Optical Terahertz Science and Technology Topical Meeting and Tabletop Exhibit, 2007.
 33. "Electro-optic effect with a chirped probe pulse,"

- B. Yellampalle*, K. Y. Kim, G. Rodriguez, J. H. Glowonia, and A. J. Taylor,
Optical Terahertz Science and Technology Topical Meeting and Tabletop Exhibit, 2007
32. "Terahertz radiation via two-color photocurrent mixing,"
K. Y. Kim*, J. H. Glowonia, A. J. Taylor, and G. Rodriguez,
Frontiers in Optics 2006 (the 90th OSA Annual Meeting) and Laser Science XXII,
October 2006, postdeadline.
 31. "Terahertz time-resolved reflection spectroscopy for electrical conductivity measurements
in the femtosecond laser-induced ablation dynamics,"
K. Y. Kim*, J. H. Glowonia, A. J. Taylor, and G. Rodriguez,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Long Beach, California, May
2006.
 30. "Simulation of the generation of low frequency radiation from argon clusters illuminated by
high-intensity short pulse lasers,"
C. Cordova, J. Cooley*, and K. Y. Kim,
Proceedings of the 47th Annual Meeting of the Division of Plasma Physics, Denver,
Colorado, October 2005.
 29. "Single-shot, high-resolution terahertz diagnostic and its applications to laser-plasma
interactions,"
K. Y. Kim*, B. Yellampalle, G. Rodriguez, and J. H. Glowonia,
Proceedings of the 47th Annual Meeting of the Division of Plasma Physics, Denver,
Colorado, October 2005.
 28. "Single-shot, high resolution terahertz field diagnostic,"
K. Y. Kim*, B. Yellampalle, G. Rodriguez, R. D. Averitt, A. J. Taylor, J. H. Glowonia,
Frontiers in Optics 2005 (the 89th OSA Annual Meeting) and Laser Science XXI,
October 2005, postdeadline.
 27. "Propagation of intense femtosecond laser pulses through clustered gases,"
H. Milchberg*, I. Alexeev, T. Antonsen, A. Gupta, K. Y. Kim, V. Kumarappan, and T.
Taguchi,
Frontiers in Optics 2005 (the 89th OSA Annual Meeting) and Laser Science XXI,
October 2005, invited.
 26. "Femtosecond laser studies of shocked materials,"
D. Funk*, S. MacGrane, D. Moore, C. Bolme, T. Germann, K. Y. Kim, B. Yellampalle,
E. Reed, G. Rodriguez, A. Taylor, and J. Glowonia,
Directed Energy Professional Society meeting on the third annual Ultrashort Pulse Laser
Materials Interaction Workshop, Boulder, Colorado, September 2005.
 25. "Spectral redshifts in the intense laser-cluster interaction,"
K. Y. Kim, I. Alexeev, T. M. Antonsen, A. Gupta, V. Kumarappan, H. M. Milchberg*,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Baltimore, Maryland, May
2005.
 24. "Efficient generation of low-density plasma waveguides in clustered gases,"
V. Kumarappan, H. Sheng, B. Layer, K. Y. Kim, and H. M. Milchberg*,
CLEO/QELS and PhAST Technical Digest on CD-ROM, Baltimore, Maryland, May
2005.
 23. "Measurement of ultrafast dynamics in the interaction of intense laser pulses with gases,
clusters, and plasma waveguides,"
K. Y. Kim*,

- Proceedings of the 46th Annual Meeting of the Division of Plasma Physics, Savannah, Georgia, November 2004.
22. "Red-shifts and self-guiding of intense laser pulses propagating in clustered gases," H. M. Milchberg*, K. Y. Kim, V. Kumarappan, A. Faenov, and T. Pikuz, Proceedings of the 46th Annual Meeting of the Division of Plasma Physics, Savannah, Georgia, November 2004.
 21. "Efficient end-pumped plasma waveguide generation in clustered argon and hydrogen," V. Kumarappan, J. Liu, K. Y. Kim, and H. M. Milchberg*, Proceedings of the 46th Annual Meeting of the Division of Plasma Physics, Savannah, Georgia, November 2004.
 20. "Guiding of intense pulses in fully ionized hydrogen plasma waveguides from a cluster jet," H. M. Milchberg*, V. Kumarappan, and K. Y. Kim, 31st IEEE International Conference on Plasma Science (ICOPS), Baltimore, Maryland, June 2004.
 19. "Self-guiding and red shifts of intense pulses propagating clustered gases," V. Kumarappan, K. Y. Kim, A. Gupta, T. Antonsen, and H. M. Milchberg*, 31st IEEE International Conference on Plasma Science (ICOPS), Baltimore, Maryland, June 2004.
 18. "Self-guiding and frequency shifts of intense laser pulses propagating in clustered gases," K. Y. Kim, V. Kumarappan, A. Gupta, T. Antonsen, H. M. Milchberg*, A. Ya. Faenov, and T. A. Pikuz, CLEO/IQEC and PhAST Technical Digest on CD-ROM, San Francisco, California, May 2004.
 17. "Measurement of the average cluster size and density of clusters in gas jets," K. Y. Kim, V. Kumarappan, and H. M. Milchberg*, CLEO/IQEC and PhAST Technical Digest on CD-ROM, San Francisco, California, May 2004.
 16. "Guiding of intense laser pulses in plasma waveguides from clustered gases," V. Kumarappan, K. Y. Kim and H. M. Milchberg*, CLEO/IQEC and PhAST Technical Digest on CD-ROM, San Francisco, California, May 2004.
 15. "Self phase modulation and coupling of intense laser pulses into plasma waveguides produced in clustered gases," K. Y. Kim, H. M. Milchberg*, V. Kumarappan, I. Alexeev, A. Gupta, T. M. Antonsen, Proceedings of the 45th Annual Meeting of the Division of Plasma Physics, Albuquerque, New Mexico, October 2003.
 14. "Laser-induced femtosecond explosion dynamics of clusters and its affect on pulse self-focusing," K. Y. Kim, I. Alexeev, E. Parra, and H. M. Milchberg*, CLEO/QELS Technical Digest on CD-ROM, Baltimore, Maryland, June 2003, invited.
 13. "Measurement of laser-induced double step ionization of helium," K. Y. Kim, I. Alexeev, and H. M. Milchberg*, CLEO/QELS Technical Digest on CD-ROM, Baltimore, Maryland, June 2003.
 12. "Effective coupling of ultra-intense laser pulses to funnel-mouthed plasma waveguides," J. H. Cooley, J. Wu, T. Antonsen, Jr., K. Y. Kim, I. Alexeev, J. Fan, and H. M. Milchberg*,

- CLEO/QELS Technical Digest on CD-ROM, Baltimore, Maryland, June 2003.
11. "Time-resolved explosion of intense laser-heated clusters,"
K. Y. Kim, I. Alexeev, E. Parra, and H. M. Milchberg*,
Proceedings of the 44th Annual Meeting of the Division of Plasma Physics, Orlando,
Florida, November 2002.
 10. "Single-shot supercontinuum spectral interferometry with laser-induced-ionization in air,"
K. Y. Kim, I. Alexeev, and H. M. Milchberg*,
CLEO/QELS 2002 Technical Digest, Long Beach, California, May 2002.
 9. "Measurement of superluminal group velocity of an ultrashort laser Bessel beam pulses,"
I. Alexeev, K. Y. Kim, and H. M. Milchberg*,
CLEO/QELS 2002 Technical Digest, Long Beach, California, May 2002.
 8. "Non-relativistic plasma channel formation in a helium gas jet,"
K. Y. Kim, I. Alexeev, H. M. Milchberg*,
Proceedings of the 43rd Annual Meeting of the Division of Plasma Physics, Long Beach,
California, October 2001.
 7. "Experimental observation of ionization induced instabilities of short intense laser pulse,"
I. Alexeev, K. Y. Kim, T. M. Antonsen, Y. Li, H. M. Milchberg*,
Proceedings of the 43rd Annual Meeting of the Division of Plasma Physics, Long Beach,
California, October 2001.
 6. "Resonant self-trapping of Bessel beams in plasma channels,"
J. Fan, I. Alexeev, K. Y. Kim, E. Parra, and H. M. Milchberg*,
CLEO/QELS Technical Digest, Baltimore, Maryland, May 2001.
 5. "X-ray and extreme ultraviolet emission induced by variable pulse-width irradiation of Ar
and Kr clusters and droplets,"
E. Parra, I. Alexeev, J. Fan, K. Y. Kim, S. J. McNaught, H. M. Milchberg*,
CLEO/QELS Technical Digest, Baltimore, Maryland, May 2001.
 4. "Irradiation of Ar and Kr clusters with variable width laser pulses,"
E. Parra, I. Alexeev, J. Fan, K. Y. Kim, and H. M. Milchberg*,
Proceedings of the 41st Annual Meeting of the Division of Plasma Physics, Seattle,
Washington, November 1999.
 3. "Optical guiding of terawatt laser pulses in the plasma waveguide,"
I. Alexeev, J. Fan, K. Y. Kim, S. Nikitin, H. M. Milchberg*,
Proceedings of the 41st Annual Meeting of the Division of Plasma Physics, Seattle,
Washington, November 1999.
 2. "Faster-than-light-speed ionization wave: propagation and electron density evolution,"
I. Alexeev, J. Fan, K. Y. Kim, H. M. Milchberg*,
Proceedings of the 41st Annual Meeting of the Division of Plasma Physics, Seattle,
Washington, November 1999.
 1. "High efficiency coupling and guiding of intense femtosecond laser pulses in preformed
plasma channels in an elongated gas jet,"
I. Alexeev, J. Fan, K. Y. Kim, S. P. Nikitin, and H. M. Milchberg*,
CLEO/QELS Technical Digest, Baltimore, Maryland, May 1999.

Original Designs, Plans, Inventions, Software, and/or Patents

- Invention Disclosure, "Method and material for single-shot terahertz pulse characterization via two-dimensional electro-optic imaging with dual echelons,"

J. H. Glowia, K. Y. Kim, B. Yellampalle, A. J. Taylor, and G. Rodriguez,
Los Alamos National Laboratory, February 2007.

Contracts and Grants

- AFOSR, *Intense Terahertz Field Generation and its Interaction with Matter*, Lead Investigator, \$660,000 (2015-2020).
- AFOSR, *DURIP: Mid-Infrared Laser Source for Femtosecond High Field Laser-Matter...*, Co-Investigator, \$594,000 (2015-2016).
- AFOSR, *MURI: Harnessing Strong-Field Mid-Infrared (IR) Lasers: Designer Beams of Relativistic Particles and THz to X-Ray Light*, UMD Co-investigator, \$1,425,000 (2015-2020).
- NSF, *Career: A Single-Shot Camera Capturing Ultrafast Dynamic Phenomena*, Lead Investigator, \$400,000 (2014-2019).
- DOE, Fusion Energy Sciences (FES), *High-Energy-Density Micro- and Nano-Plasma Interaction with Relativistic High-Repetition-Rate Lasers*, Lead Investigator, \$699,000 (2013-2015).
- AFOSR, *Extreme Nonlinear Optics of High Intensity Laser Pulse Filamentation in Gases*, Co-Investigator, \$962,971 (2012-2015).
- DTRA, *Direct Laser-Acceleration in Plasma Slow-Wave Structures and Application to Gamma-Ray Source for Nuclear Materials Detection*, Co-Investigator, \$1,694,767 (2010-2015).
- DOE, Office of Science Early Career Research Program, *Generation, Imaging, and Control of Ultrafast Electrical Currents and Radiation*, Lead Investigator, \$750,000 (2010-2014).
- NSF, *RECOVERY: Collaborative Research: Graduate Student Training Through Research on Plasma-Based Accelerators*, Co-Investigator, \$557,319 (2009-2014).
- ONR, *Center for Applied Electromagnetics*, Co-Investigator, \$726,563 (2009-2013).

Fellowships, Prizes, and Awards

- Richard A. Ferrell Distinguished Faculty Fellowship, \$10,000, Department of Physics, University of Maryland, 2014.
- NSF Faculty Early Career Development (Career) Award, 2014.
- DOE Early Career Research Award, 2010 (http://science.energy.gov/~media/early-career/pdf/FY10_Early_Career_Research_Program_Abstracts.pdf).
- Postdoctoral Distinguished Performance Award at Los Alamos National Laboratory, 2007 (<http://www.lanl.gov/careers/career-options/postdoctoral-research/postdoc-program/postdoc-awards-prizes.php>).
- Recipient of the Marshall N. Rosenbluth Outstanding Doctoral Thesis Award presented by the American Physical Society (APS), formally known as the “Outstanding Doctoral Thesis in Plasma Physics Award” and originally the “Simon Ramo Award”, 2004. (http://www.aps.org/programs/honors/prizes/prizerecipient.cfm?last_nm=Kim&first_nm=Ki-Yong&year=2004)
- Selected as a Director’s Postdoctoral Fellow at Los Alamos National Laboratory, 2004
- Gold medal with Highest Honors in College of Science, Korea University, South Korea, 1995.
- University Scholarship, Korea University, South Korea, 1991 – 1992, 1993 – 1995.

Editorships, Editorial Boards, and Reviewing Activities for Journals and Other Learned Publications

- **Journal Reviewer:** Applied Physics Letters, Chemical Physics, Journal of Applied Physics, Journal of the Optical Society of America B, Nature Photonics, New Journal of Physics, Optics Communications, Optics Letters, Optics Express, Physics Letters A, Physical Review E, Physical Review Letters, Physics of Plasmas, and Transactions on Terahertz Science and Technology.

Teaching, Mentoring, and Advising

Courses taught in the last five years

PHYS 275 – Experimental Physics I: Mechanics and Heat,	Spring 2016
PHYS 373 – Mathematical Methods for Physics II,	Fall 2015
PHYS 275 – Experimental Physics I: Mechanics and Heat,	Spring 2015
PHYS 122 – Fundamentals of Physics II,	Fall 2014
PHYS 275 – Experimental Physics I: Mechanics and Heat,	Spring 2014
PHYS 122 – Fundamentals of Physics II,	Fall 2013
PHYS 171 – Introductory Physics: Mechanics and Relativity,	Spring 2013
PHYS 122 – Fundamentals of Physics II,	Fall 2012
PHYS 171 – Introductory Physics: Mechanics and Relativity,	Spring 2012
PHYS 142 – Principles of Physics II,	Fall 2011
PHYS 174 – Physics Laboratory Introduction,	Spring 2011
PHYS 142 – Principles of Physics II,	Fall 2010
PHYS 174 – Physics Laboratory Introduction,	Spring 2010
PHYS 142 – Principles of Physics II,	Fall 2009
PHYS 398 – Independent Studies Seminar,	Fall 2009
PHYS 399 – Special Problems in Physics,	Spring 2009
PHYS 174 – Physics Laboratory Introduction,	Spring 2009

Textbooks, Manuals, Notes, Software, Web pages and Other Contributions to Teaching

Co-editor in revising PHYSICS 174 Laboratory Manual (11th edition, 2009)

Advising: Other Than Research Direction

i. Undergraduate

Selena Villanueva (10/2015 – current), Sarah Weatherly (11/2015 – current), Robert Krahn (03/2011 – 12/2013), Justin Felgar (03/2011 – 12/2013), Toomaj Javidtash (03/2011 – 12/2013), Joseph Downs (06-12/2012), Roland Jeannier (10/2010 – 12/2011), Timothy Tran (10/2010 – 12/2012), Christopher Salata (06/2010 – 09/2011),

ii. Graduate

Qile Zhang (08/2012 – 12/2013), Yuan Tay (08/2014 – current), Peter Meyson (08/2014 – current), Ilia Larkin (08/2014 – current)

Advising: Research Direction

i. Undergraduate

Malik Kimblue (02/2016 – current), Bonho Koo (02/2016 – current), Sarang Yeola (01/2016 – current), Luke Hahn (06/2013 – 08/2013, 02/2014 – current), Jun-Hee Baek (01/2015 – 08/2015), Kevin Bartas (09/2014 – 12/2015), Yuan Tay (07/2013 – 12/2013), Brian Handy (05/2013 – 08/2013), Brendan Lockhart (06/2012), Joseph Downs (06/2012), Platon Lukyanenko (03-08/2012), Christopher Salata (06/2010 – 09/2011), Timothy Tran (12/2010 – 01/2011), Dongyoul Lee (01/2009 – 08/2012), Matthew Adams (01-10/2009), Matthew Graves (01-10/2009), Rahul Gogna (03-08/2012)

ii. Graduate

Zheqiang Zhong, visiting student trainee from Sichuan Univ., China, 02/2016 – current
Daiwei Zhu, Electrical Engineering Dept., 09/2015 – current
Yuan Tay, Physics Dept., 08/2014 – current
Yungjun Yoo, Electrical Engineering Dept., 06/2012 – current
Donggyu Jang, visiting student trainee from GIST, Korea, 11/2012 – 12/2013
Vijay Kaul, Physics Dept., 08/2012 – 10/2013
Jeffrey Magill, Physics Dept., 06/2012 – 12/2013
Inhyuk Nam, visiting student trainee from GIST, Korea, 09/2011 – 08/2012
Taek Il Oh, Electrical Engineering Dept., 07/2009 – 08/2013, *Ph.D. defense* in 06/2013
Yong Sing You, Chemical Physics Program, 06/2009 – present, *Ph.D. defense* in 01/2014

iii. Postdocs

Dr. Donghoon Kuk, 10/2014 – current
Dr. Dongwen Zhang, *Fellowship, Ministry of Education of China*, 01/2013 – 01/2014
Dr. Jane Lee, *Ellen Williams Distinguished Postdoc Fellow*, 01/2011 – 03/2012

iv. Faculty Research Assistants

Dongyoul Lee (10/2011 – 08/2012)
Yuan Tay (01/2014 – 07/2014)

v. High School Students

Christopher Cha, Centennial High School, internship, 2015 summer
Luke Hahn, Marriott's Ridge HS (Gifted & Talented), internship, 2012 – 2013
Jerome Glick, Blair High School (magnet program), internship, 2011 summer
Doyung Lee, Blair High School (magnet program), internship, 2010 summer

Service

Professional

- Vice President, Washington Metro Chapter, Korean-American Scientists and Engineering Association, Aug 2014 – present.

- General Secretary, Association of Korean Physicists in America (AKPA), Aug 2015 – present.
- Publicity and Editorial Committee, Association of Korean Physicists in America (AKPA), Sep 2009 – 2015.
- US-Korea Conference (UKC) Physic Committee, 2012 – 2016.
- Grant proposal reviewer, DOE (2008, 2012, 2014 – 2016), LA EPSCoR (2012), DOE SBIR (2013 – 2015), CINT-LANL (2013 – 2015), Leverhulme Trust (2014), KSEA-YIG (2015), Swiss National Science Foundation (2015), NSF (2016)
- APS/DPP 2012 Program Committee and ICF/HED subpanel, 2012.
- CLEO/Europe 2011 Program Committee (Ultrafast Optics and Applications), 2010 – 2012.
- Local Organizing Committee and Work Group Co-Leader, Advanced Accelerator Concepts 2010, 2009 – 2010.
- Reviewer, DOE Office of Science Graduate Fellowship (DOE SCGF) Program, February 2010.
- Panelist, High Energy Density Laboratory Plasma, Research Needs Workshop, Rockville, MD, November 2009.
- Presider, THz Sources at CLEO/QELS conference 2008.

Campus

- Physics Graduate Admission Committee (2013, 2015, 2016)
- Dissertation Defense Committees
 - 2009-2010: Ilya Arakelyan
 - 2011: Yu-hsin Chen, Andrew Pearson, Kevin Twedt, Colin Kennedy (undergraduate)
 - 2012: Arman Fallah (Master), Brian Layer
 - 2013: Taek Il Oh, Jasmine Zhu, Yu-Hsiang Cheng, Tung-Chang Liu
 - 2014: Yong Sing You (Chair), Jeremiah Wathen, Luke Johnson
 - 2015: Ruifeng Pu, Yingda Lin (undergraduate), Shanshan Li, Andrew Goers
- Physics Qualifying Exam Framer & Grader (Spring 2010, Fall 2011, Summer 2012, Spring 2014, Spring 2015, Spring 2016).
- Physics Lecture Demonstration Facility Advisory Committee (2014)
- Physics Qualifying Exam Oral Committee (Fall 2011, Fall 2013).
- Physics Colloquium Committee (Fall 2010, Spring 2011, Fall 2011, Spring 2012)
- Physics Council Committee (Fall 2009 – current)

Community & Other Service

- Chair/co-chair, National Math and Science Competition (NMSC) by Washington Metro Chapter, Korean-American Scientists and Engineering Association (KSEA), 2015 (co-chair), 2016 (chair).
- Committee, National High School Physics Contest (NHSPC) by Association of Korean Physicists in America (AKPA), 2015 – 2016.

Service Awards and Honors

- Service Award presented by the Association of Korean Physicists in America (AKPA) at Forum on International Physics (FIP) reception, APS March Meeting, 03/2013.